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09/871,171	05/31/2001	Mary Lucille DeLucia	KCC-15,135	9932

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EXAMINER

ROSSI, JESSICA

ART UNIT

PAPER NUMBER

1733

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/871,171

Applicant(s)

DELUCIA ET AL.

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/4/02, election, paper no. 5.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 32-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4. 6) ☐ Other: \_\_\_\_\_

***Election/Restrictions***

1. Applicant's election without traverse of Group 1, claims 1-31, in Paper No. 5 is acknowledged.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 22-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 22, it is unclear as to how line 6 can state a "second heterogeneous component" when line 9 states that the second component is homogeneous. It appears that Applicants inadvertently referred to the second component as being heterogeneous instead of homogeneous in line 6. Applicants are asked to clarify. It is suggested to change heterogeneous to homogeneous in line 6.

Regarding claims 25-26, it is unclear as to why these claims mention slits when they depend on claim 22, which only mentions apertures. It appears that claims 25-26 should be dependent on claim 24. Applicants are asked to clarify.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1-2, 5, 7-8, 12, 14, 16, 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Zelazoski (GB 2284786; provided in IDS).

With respect to claim 1, Zelazoski, directed to making a composite, absorbent material for personal care products, teaches forming a first layer 14 having a first shrinkage extent (p. 6, lines 19-20; p. 4, lines 18-23), forming a second layer 12 having a shrinkage extent different from that of the first layer (p. 9, lines 24-30), bonding the second layer to the first layer (p. 9, lines 31-34), forming a plurality of apertures through the second layer (p. 6, lines 6-7), and shrinking either the first or second layer to produce the composite material (p. 14, lines 36-37; p. 15, lines 3-5).

Regarding claim 2, the reference teaches slitting to form the apertures 22 (p. 6, lines 6-7).

Regarding claim 5, the reference teaches heating the material to affect shrinkage of either the first or second layers (p. 15, lines 3-7).

Regarding claim 7, the reference teaches bonding the layers by thermal bonding (p. 10, lines 1-3).

Regarding claim 8, the reference teaches stretching the second layer prior to bonding it to the first layer (p. 4, lines 18-25).

Regarding claim 12, the reference teaches the apertures 22 being formed by opening the slits 18 (p. 6, lines 6-7).

Regarding claim 14, the reference teaches the slits being formed in the machine direction, cross machine direction, or angular direction (Figures 5, 7).

Regarding claim 16, the reference teaches the first layer comprising a polypropylene polymer (p. 11, lines 22-24).

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Regarding claim 18, the reference teaches the second layer comprising a film (p. 6, lines 19-20).

Regarding claim 19, the reference teaches the film including a filler (p. 6, lines 33-34).

Regarding claim 20, the reference teaches the filler being titanium dioxide (p. 6, lines 35-37).

Regarding claim 21, the reference teaches the first layer being a nonwoven web (p. 11, lines 22-23).

6. Claims 1, 5, 7-8, and 17-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacobs (US 5814178).

With respect to claim 1, Jacobs, directed to making a composite, absorbent material for personal care products, teaches forming a first layer 30 having a first shrinkage extent (column 1, lines 52-54; column 4, lines 51-55), forming a second layer 12 having a shrinkage extent different from that of the first layer (column 4, lines 9-13), bonding the second layer to the first layer (column 4, lines 56-63), forming a plurality of apertures through the second layer (column 7, lines 60-62), and shrinking the second layer to produce the composite material (column 3, lines 45-46).

Regarding claim 5, the reference teaches heating the material to affect shrinkage of the second layer (abstract).

Regarding claim 7, the reference teaches bonding the layers by thermal bonding (column 4, lines 60-63).

Regarding claim 8, the reference teaches stretching the second layer prior to bonding it to the first layer (column 3, lines 46-47).

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Regarding claim 17, the reference teaches the second layer comprising ethylene-propylene copolymer (column 7, lines 26-27).

Regarding claim 18, the reference teaches the second layer comprising a film (column 4, lines 9-12).

Regarding claim 19, the reference teaches the film including a filler (column 7, lines 63-64).

Regarding claim 20, the reference teaches the filler being clay or titanium dioxide (column 8, lines 7-9).

Regarding claim 21, the reference teaches the first layer being a nonwoven web (column 6, lines 34-35; column 8, lines 64-65).

7. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Srinivasan et al. (EP 687757; provided in IDS).

With respect to claim 22, Srinivasan, directed to making a composite, absorbent material for personal care products, teaches providing a first homogeneous component having a first shrinkage extent, providing a second homogeneous component having a shrinkage extent different from that of the first component, forming a heterogeneous material by combining the first and second components, and shrinking either one of the components to form apertures in the material (specifically column 5, line 52 – column 6, line 1; also see column 3, lines 14-17 and 41-43 and 49-50; column 4, lines 8-9 and 14-17).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breveteam (GB 1293456; provided in IDS).

With respect to claim 29, Breveteam, directed to a material for accommodating passage of fluids, teaches forming a heterogeneous material 1 with a shrinkage extent (p. 3, lines 50-52), applying slits through the material (p. 1, lines 25-26 and 40-41), and heating the material to shrink it such that the slits open up to form apertures (p. 2, lines 61-62; p. 3, lines 40-42). It is noted that the present claim language states shrinking at least one of the first and second components of the heterogeneous material, which includes shrinking all components of the material. The reference is silent as to the heterogeneous material having a first component with a first shrinkage extent and a second component with a shrinkage extent different from that of the first component.

It is noted that the reference lists polyethylene, polypropylene, polyamide, PVC, polyester as components that can be used to make the heterogeneous material (p. 3, lines 55-59). The skilled artisan would have readily appreciated that these materials have different shrinkage extents.

Regarding claim 30, the reference teaches applying a topsheet 2 to the material 1 before heating the material (column 3, lines 87-90; column 2, lines 61-62), wherein the top sheet has a shrinkage extent different from that of the heterogeneous material (column 3, lines 87-89).

Regarding claim 31, selection of a particular material for the topsheet would have been within purview of the skilled artisan depending on the desired characteristics.

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10. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zelazoski et al. in view of Breveteam.

With respect to the Zelazoski reference, Applicant is referred to paragraph 5 above for a complete discussion of the same.

Regarding 3, Zelazoski is silent as to when the apertures are formed in the second layer. Determination of when to form the apertures with respect bonding would have been within purview of the skilled artisan. However, it would have been obvious to form the apertures in the second layer prior to bonding it to the first layer because such is known in the art, as taught by Breveteam (p. 3, lines 60-64).

Regarding claim 6, Zelazoski is silent as to how the material is heated. Selection of a particular heating method would have been within purview of the skilled artisan depending on the materials used. However, it would have been obvious to one of ordinary skill in the art to use infrared heating because such is known in the art, as taught by Breveteam (p. 5, lines 23-29).

11. Claims 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zelazoski et al.

Applicant is referred to paragraph 5 above for a complete discussion of Zelazoski.

Regarding claims 9-11, determining how much to stretch the second layer and how large to make the apertures would have been within purview of the skilled artisan at the time the invention was made depending on the material used and the desired characteristics of the finished composite.

Regarding claim 13, selection of a particular method for forming the slits would have been within purview of the skilled artisan absent any unexpected results. The particular slitting



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method of claim 13 is taken as conventional in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to control the degree of stretch (as well as to provide for various sized apertures) in Zelazoski as such would have afforded one the ability to produce various kinds of finished apertured assemblies dependent upon ones needs.

12. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zelazoski et al. in view of Jacobs.

Applicant is referred to paragraph 5 above for a complete discussion of Zelazoski.

Regarding claim 17, Zelazoski teaches the second layer comprising copolymers and blends of polyolefins (p. 6, lines 19-20) but is silent as to ethylene-propylene copolymers. Selection of a particular material for the second layer would have been within purview of the skilled artisan at the time the invention depending on the desired characteristics. However, it would have been obvious to the skilled artisan to use the material of the present invention because it is known in the art to form a composite by bonding a film layer, made of ethylene-propylene copolymer and having apertures therein, to a nonwoven layer and heat shrinking the film layer to form gathers between the layers, as taught by Jacobs (column 7, lines 24-27; column 1, lines 52-54; column 7, lines 60-62).

13. Claims 2, 9-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs in view of Zelazoski.

Applicant is referred to paragraph 6 for a complete discussion of Jacobs.

Regarding claims 2 and 12, Jacobs is silent as to forming the apertures by slitting. It would have been obvious to form the apertures in the second, film layer by slitting because such is known in the art, as taught by Zelazoski (see paragraph 5), and slitting allows little or no

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material to be removed, as opposed to directly forming apertures in the film, since the slits will open up to form apertures upon shrinking of the film (Zelazoski; p. 7, lines 33-35).

Regarding claims 9-11, determining how much to stretch the second layer and how large to make the apertures would have been within purview of the skilled artisan at the time the invention was made depending on the material used and the desired characteristics of the finished composite.

Regarding claim 13, selection of a particular method for forming the slits would have been within purview of the skilled artisan absent any unexpected results.

Regarding claim 14, Zelazoski teaches the slits being formed in the machine direction, cross machine direction, or angular direction (Figures 5, 7).

Regarding claim 16, selection of a particular material for the first layer would have been within purview of the skilled artisan depending on the desired characteristics. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a propylene polymer because it is known in the art to bond a nonwoven web comprising such a polymer to a slit film layer, as taught by Zelazoski (p. 11, lines 22-24).

14. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs in view of Breveteam.

Applicant is referred to paragraph 6 for a complete discussion of Jacobs.

Regarding claim 3, Jacobs is silent as to when the apertures are formed in the second layer. Determination of when to form the apertures with respect bonding would have been within purview of the skilled artisan. However, it would have been obvious to form the apertures

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in the second layer prior to bonding it to the first layer because such is known in the art, as taught by Breveteam (p. 3, lines 60-64).

Regarding claim 6, Jacobs is silent as to how the material is heated. Selection of a particular heating method would have been within purview of the skilled artisan depending on the materials used. However, it would have been obvious to one of ordinary skill in the art to use infrared heating because such is known in the art, as taught by Breveteam (p. 5, lines 23-29).

15. Claims 23 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan et al.

Applicant is referred to paragraph 7 for a complete discussion of Srinivasan.

Regarding claim 23, selecting a size for the apertures would have been within purview of the skilled artisan depending on the desired characteristics of the layer. Certainly, one skilled in the art would have recognized the desirability of providing specific sized apertures and the exact size selected would have been a function of the desired characteristics of the finished product and so selected.

Regarding claims 27-28, the reference teaches shrinking one of the components relative to the other. Whether the first component is shrunk relative to the second component or vice versa would have been within purview of the skilled artisan depending on the selected materials.

***Allowable Subject Matter***

16. Claims 24-26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Regarding claim 24, the prior art fails to teach or suggest a method for making a material for accommodating the passage of fluids by providing a first homogeneous component having a first heat shrinkage extent, providing a second homogeneous component having a heat shrinkage extent different from that of the first component, combining the components to form a heterogeneous material, producing a plurality of slits through the material, opening the slits to form apertures, and shrinking at least the first or second component of the material.

As set forth in paragraph 7, Srinivasan teaches forming apertures in the heterogeneous material by heating the material, which causes one of the homogeneous components to shrink and take back the fibers of the other homogeneous component thereby forming an aperture. This reference teaches away from the need to slit the material to form apertures.

Regarding claims 25-26, these claims should be dependent on claim 24, as set forth in paragraph 3.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **703-305-5419**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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Jessica L. Rossi  
Patent Examiner  
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jl  
January 10, 2003



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